



ACQUISITION LOGISTICS FOR FLEET SUPPORT

NDIA Conference

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Outline

- **Operating Environment**
- **Fleet Issues/Problems**
- **Fleet Solutions**
- **Acquisition Logistics Process**
- **Conclusion**

Operating Environment

An aerial photograph of a large naval fleet, including several aircraft carriers and numerous escort ships, sailing in formation on the ocean. The ships are leaving white wakes behind them. Overlaid on the image are four large, dark blue, irregular thought bubbles. One bubble in the upper right contains the text 'Fewer ships'. The other three bubbles are empty and positioned around the fleet: one to the left, one in the lower left, and one in the lower right.

Fewer ships

Fleet Issues/Problems

Background

ILS for Cost/Work Reduction Engineering Initiatives are incomplete – many have not been funded.

- **Sailors forced to “work around” the system**
- **Most Engineering Solutions for ship systems are not fielded**
- **Paying for new solutions on the “Same Old Problem”**
- **Limited funding to completely fix problems**
- **Return on Investment (ROI) not being realized**



“Solve Today and Prevent Reoccurrence in Future Acquisitions”

Fleet Solutions

Logistics

- Coordinate Budgeted items for scheduled availability
- Track Expenditures
- Report implementation to CLF/CPF and TYCOMS
- Input new ship configuration and logistics support information systems

Concurrent Engineering

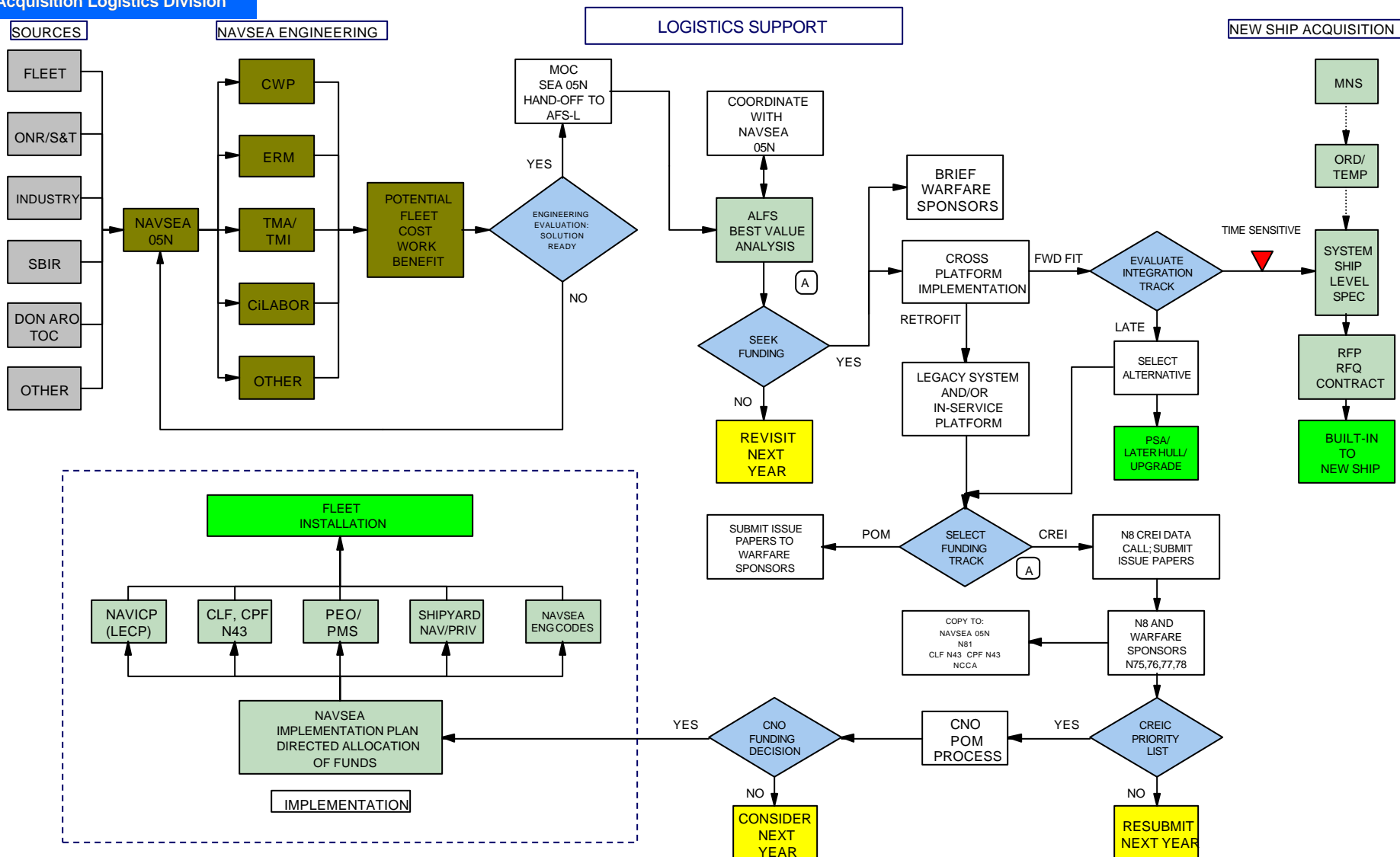


Engineering

- NAVSEA 05N provides established engineering process through ERM, CWP, TMA/TMI and CI-Labor
- Testing done cross platform
- Technical/Engineering codes develop, test, and prototype

“Integrated Logistics Support + Fleet Engineering Solutions = ALFS”

Acquisition Logistics For Fleet Support



Acquisition Logistics For Fleet Support

SOURCES

FLEET

ONR/S&T

INDUSTRY

SBIR

DON ARO
TOC

OTHER

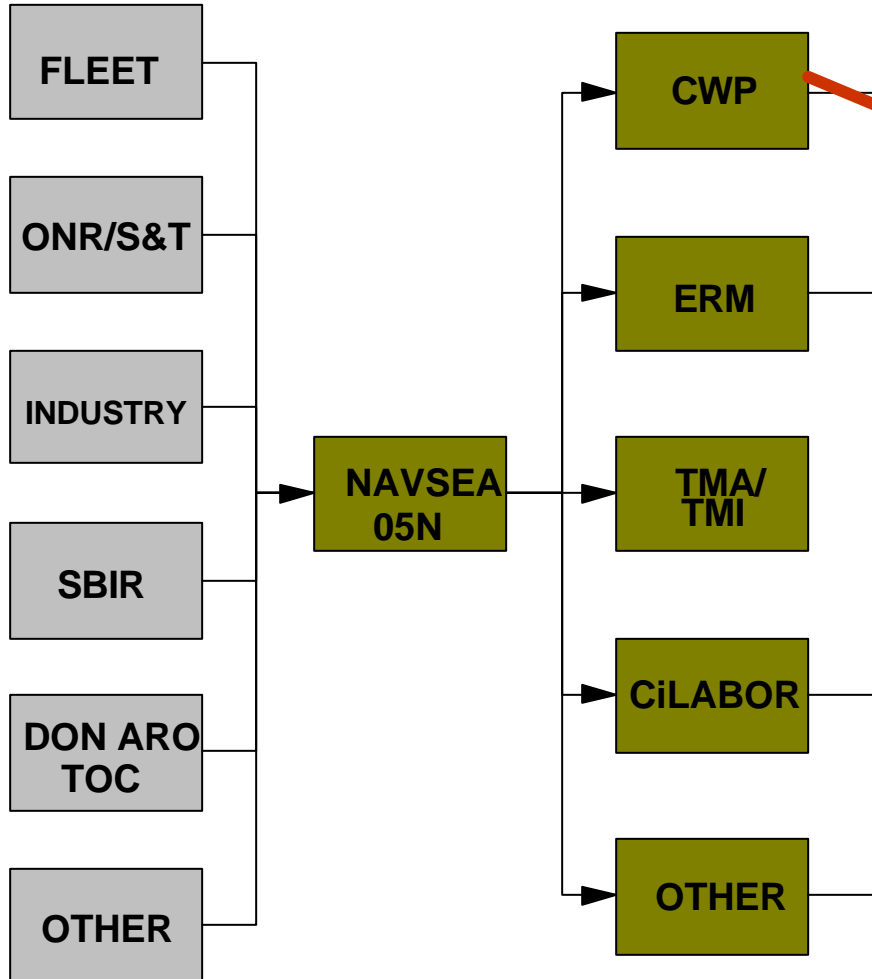
- **FLEET**
- **ONR/S&T**
- **INDUSTRY**
- **SBIR - Small Business
Innovation Research Program**
- **DON Acquisition Reform
Office (TOC)**
- **OTHER**



Acquisition Logistics For Fleet Support

SOURCES

NAVSEA ENGINEERING CODES



NAVSEA
NAVAL SEA SYSTEMS COMMAND
Acquisition Logistics Division


Cumbersome Work Practices (CWP)

Background

- Originated as a NAVSEA 08 initiative to reduce nuclear repair and maintenance cost.
- Became an effort specifically directed to;
- Eliminate/simplify NON-Nuclear cumbersome work practices,
- Focused on ship maintenance and modernization,
- Reduce costs without compromising valid technical requirements, and
- Complete institutionalization of approved technical changes.

Approach

- Identify the technical requirements of targeted items
- Debate, the merit, validity and effectiveness of the technical requirements
- Determine best solution
- Institutionalize approved documented changes



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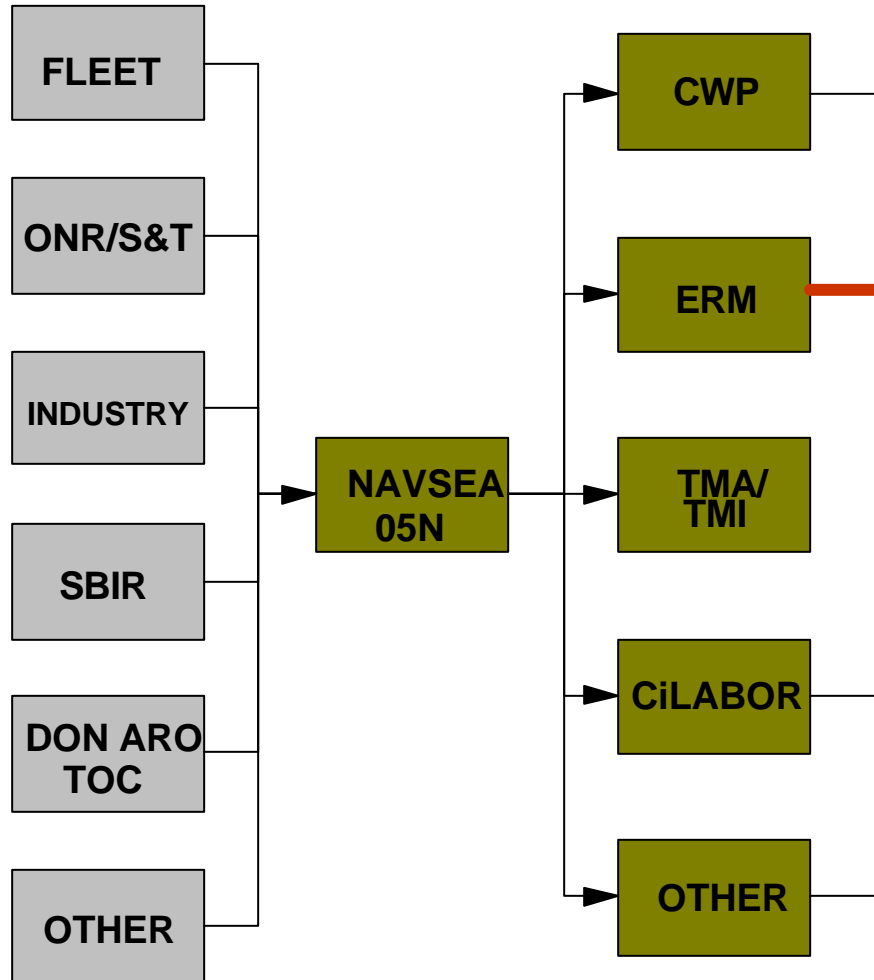

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Acquisition Logistics For Fleet Support

SOURCES

NAVSEA ENGINEERING CODES


Engineering for Reduced Maintenance (ERM)

Background

- Joint NAVSEA/Fleet initiative established in 1993 identify shipboard high maintenance problems to;
- Execute corrective action(s) on current Navy ships and systems;
- Provide process to institutionalize the best technical engineering solutions for future Navy ships and systems.

Approach

- Established list of specific Fleet issues
- Combined work of NAVSEA HQ, Navy field activities, Commercial industry and other appropriate activities
- Institutionalize solutions into current and future ships
- Appropriate Fleet and Technical authorities are notified on a periodic basis with feedback to implementation



Conventional Valve

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Conventional Valve

Engineering for Reduced Maintenance (ERM)

Areas covered in ERM

- Tanks and Voids
- Piping
- Fasteners
- Bilge Preservation
- Tank Level Indication
- Hull Systems
- Composites
- Ventilation Systems
- Electrical Systems
- Hydroblast Technology
- Well Deck Systems
- And More



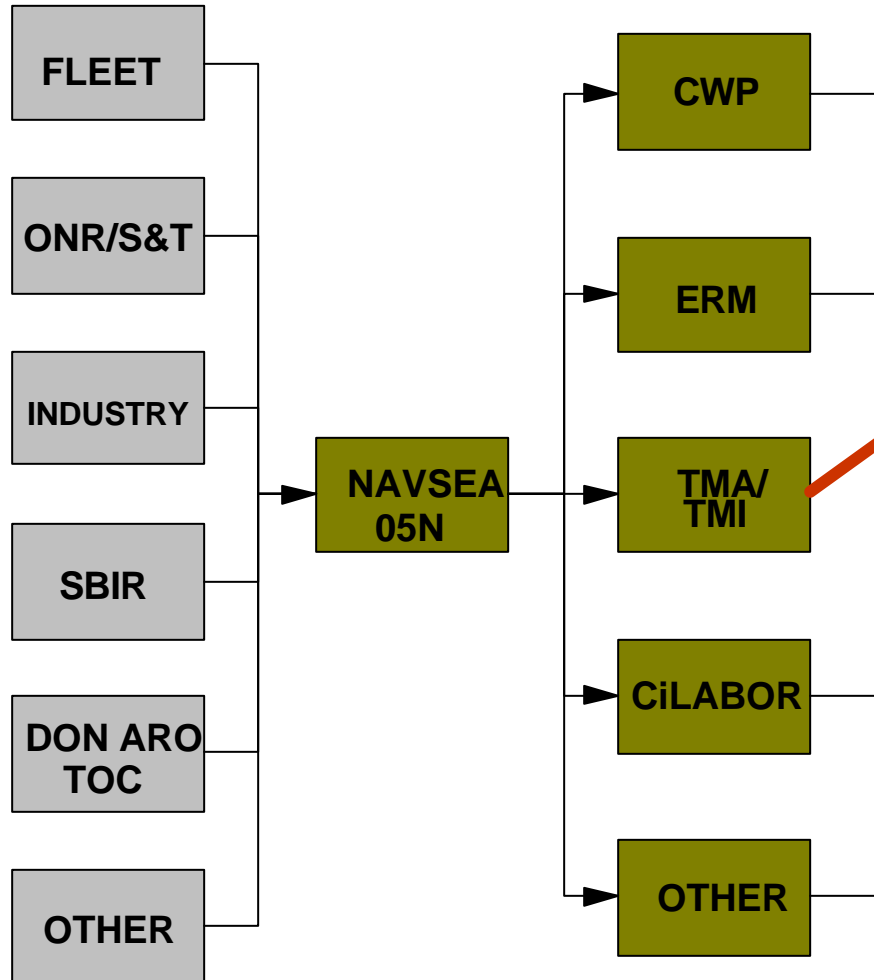
Motor Meggering
Maintenance
Requirement Cards

1. _____
2. _____
3. _____

Acquisition Logistics For Fleet Support

SOURCES

NAVSEA ENGINEERING CODES




**Top Management Attention/
Top Management Issues
(TMA/TMI)**

Background

- In 1996, CINCLANTFLT and CINCPACFLT requested NAVSEA to host TMA/TMI meetings.
- Review **Fleet-Prioritized** issues, take action, and track solutions until closes.
- TMA lead by O-6 Level (i.e. Captain)
- TMI includes Flag Level O-7 and above (i.e. RADM)

Approach

- Identify Systems or equipment with;
- Extreme maintenance actions,
- High repair costs, and
- Excessive down time.



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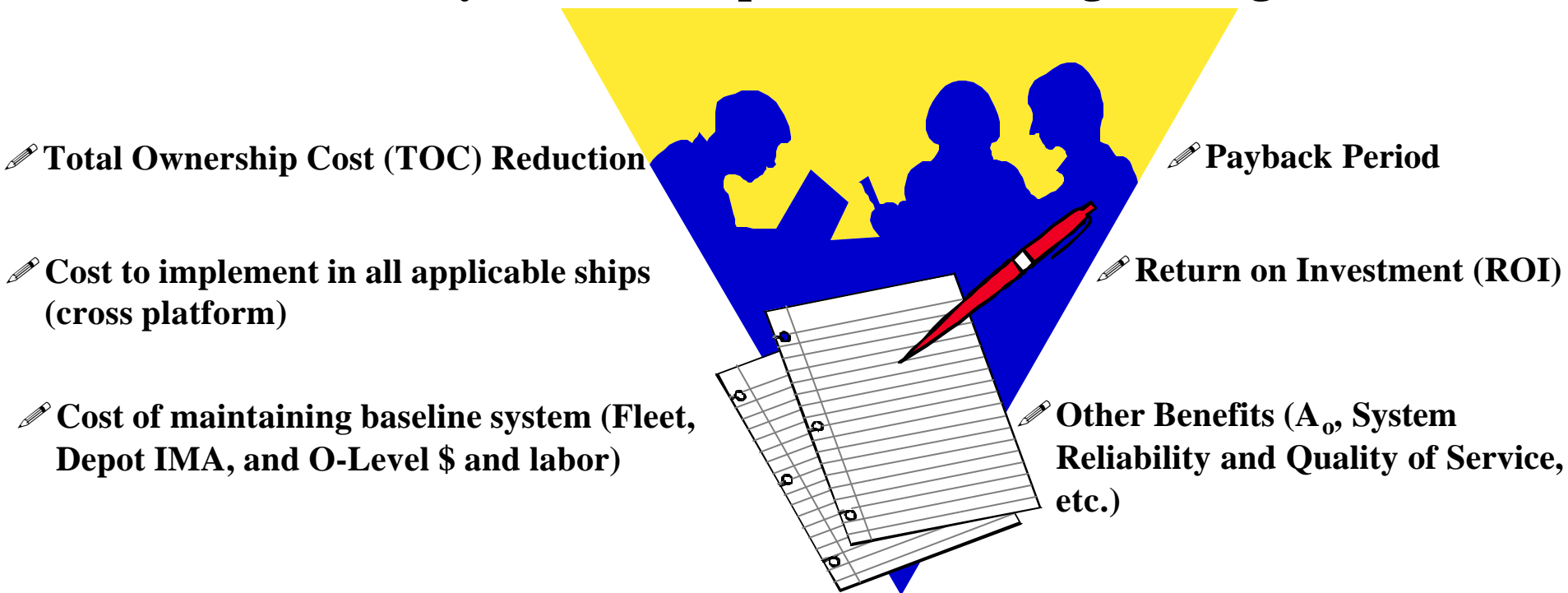
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Acquisition Logistics For Fleet Support (ALFS)

Acquisition Logistics for Fleet Support is a Fleet focused initiative which provides Integrated Logistics Support (ILS) to engineering solutions

Best Value Analysis (BVA) is performed on engineering solutions



“Create Solutions Once and Use Many Times”

Electric Motor Bearings

Problem:

- Sailors are currently burdened with tag-out and re-lubrication of bearings
- Premature bearing failures
- Motor contamination problems



Unsealed Bearing

Solution:

- **INSTALL SEALED BEARINGS**



Sealed Bearing

Electric Motor Bearings

Bottom Line:

- Pre-lubricated sealed bearings will be placed in stock
- Failed bearings will be requisitioned through the normal supply system
- Failure rate of existing bearings predicts Fleet wide installation of sealed motor bearings in five years
- Workload Reduction: 61.5 Sailor-years/year
- Navy Investment: 10.3 M FYDP
- Cost avoidance: \$2.6M annually



Composite Valves for CHT Systems

Problem:

- Faulty metallic valves in CHT sewage systems significantly degrade QOL
- Frequent necessity to shut down system

Solution:

- **INSTALL COMPOSITE VALVES**



CHT discharge valve on CVN 71



NPS 1/2-3 Composite Valves Approved
for Navy Applications

Composite Valves for CHT Systems

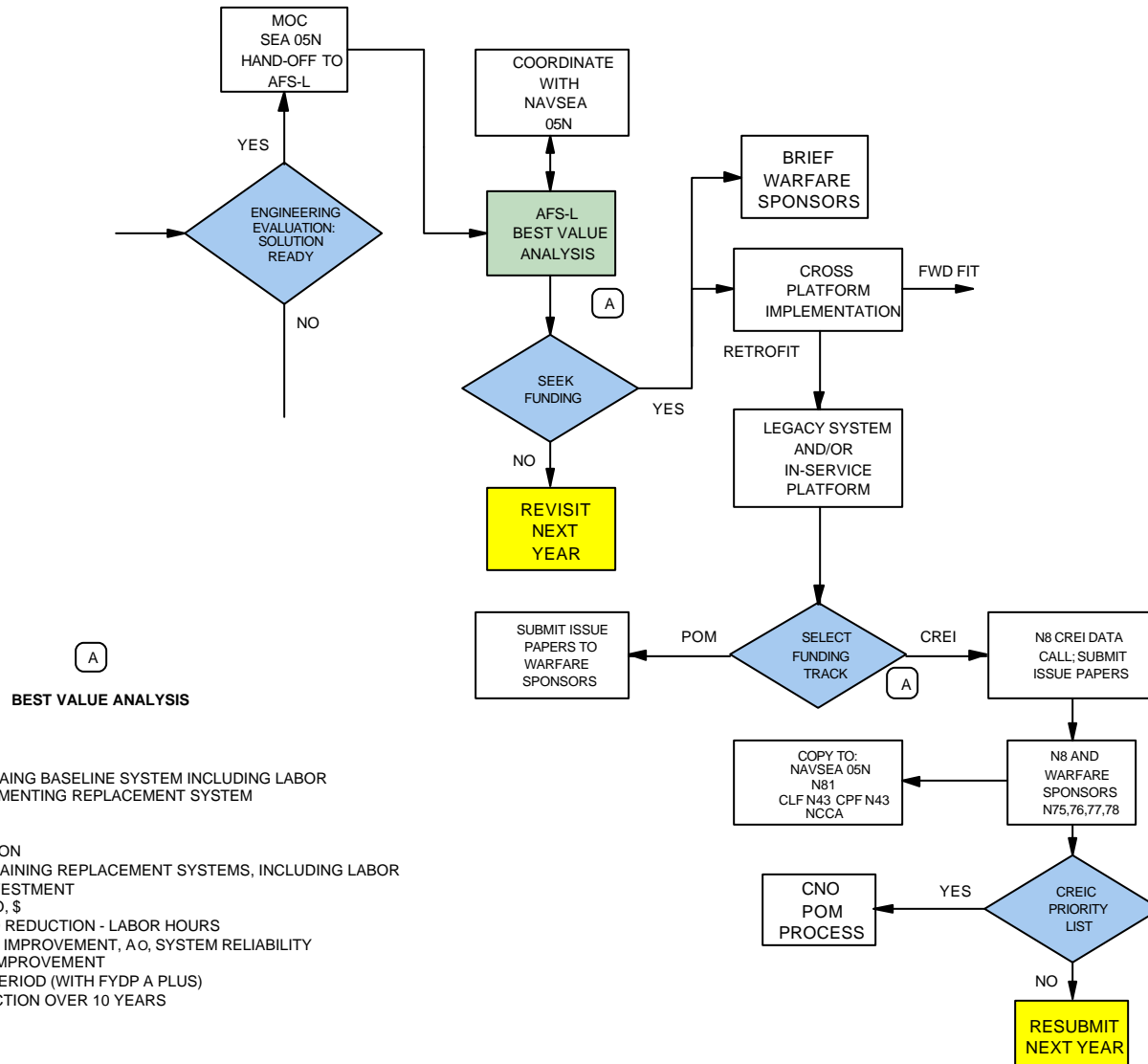
Bottom Line:

- **Install during scheduled maintenance availabilities**
- **Return on Investment (ROI) FYDP 2.3:1**
- **Payback year FY05- 3 years into FYDP**
- **Workload Reduction: 120 Sailor-years/year**
- **Navy Investment: \$10M FYDP**
- **Cost avoidance: \$4.1 M annually**



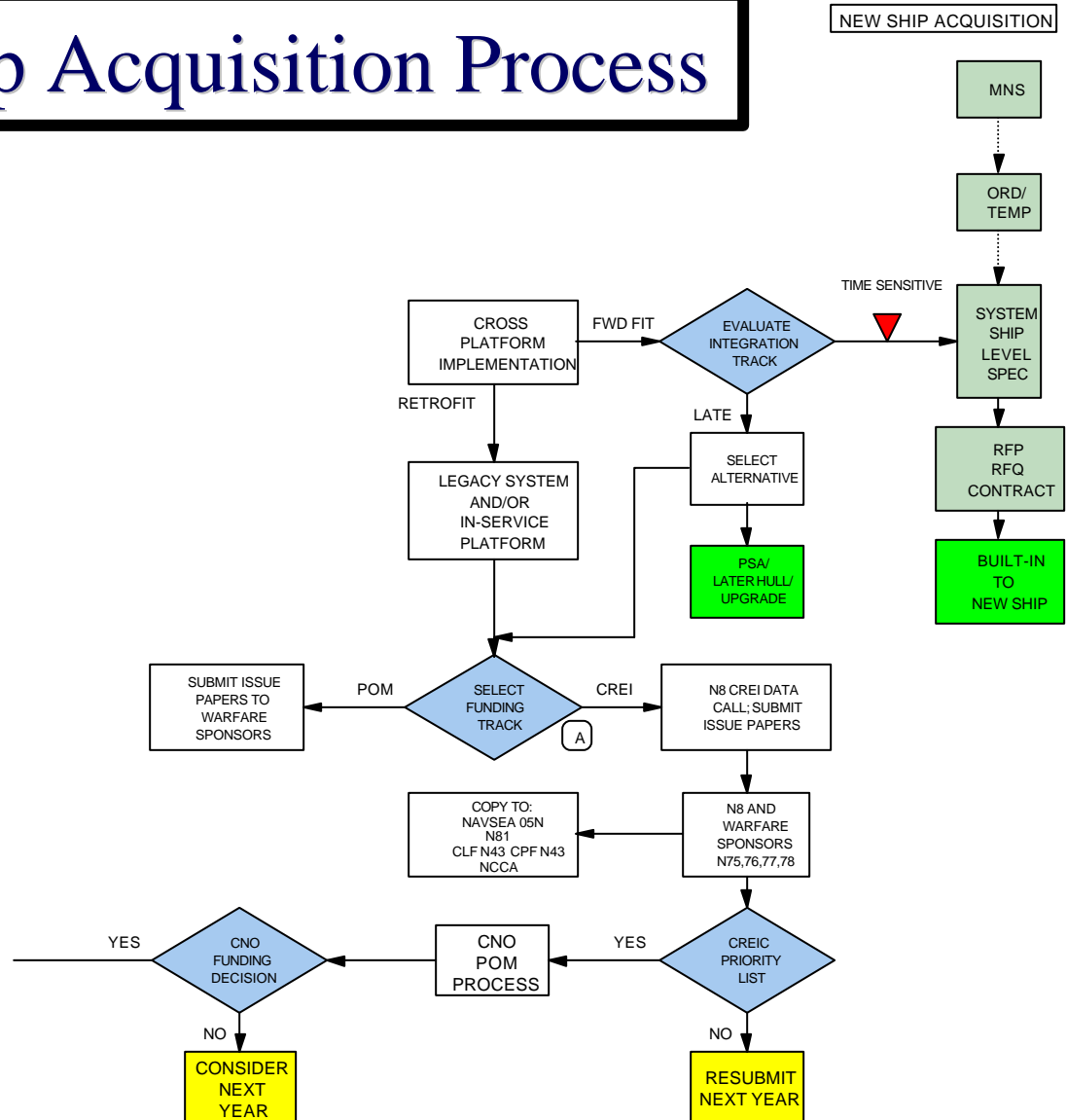
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Legacy Ship Solution Process



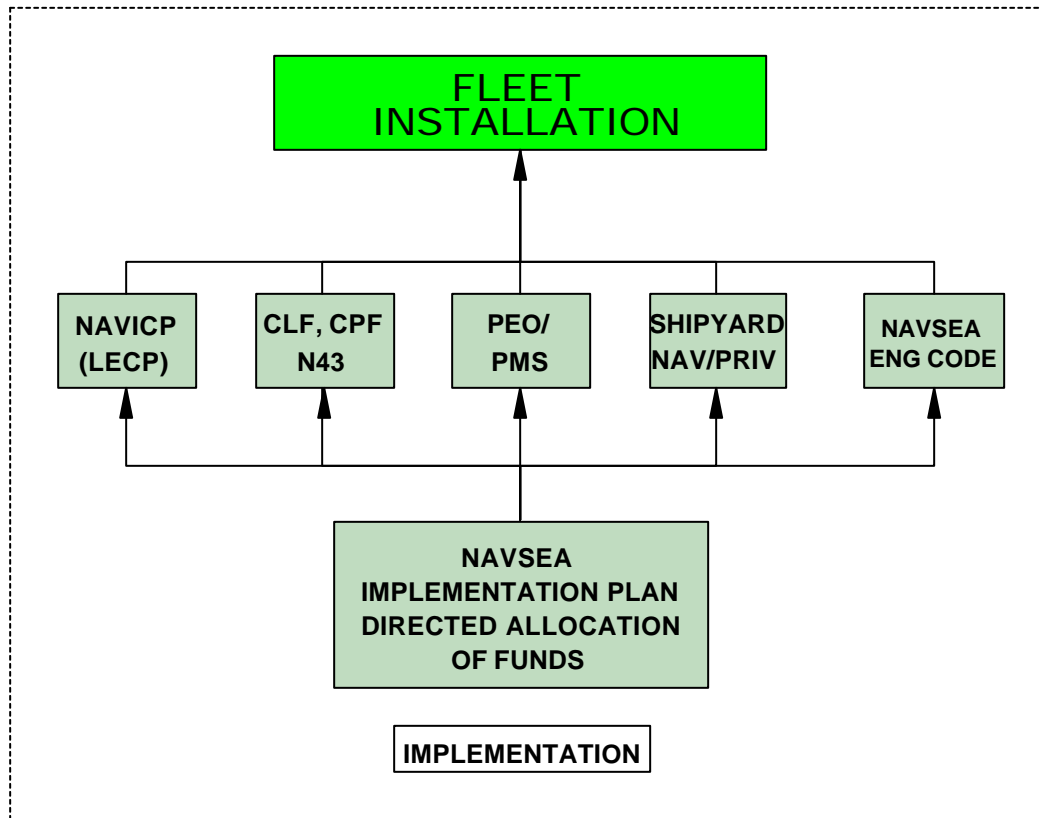
Acquisition Logistics For Fleet Support

New Ship Acquisition Process

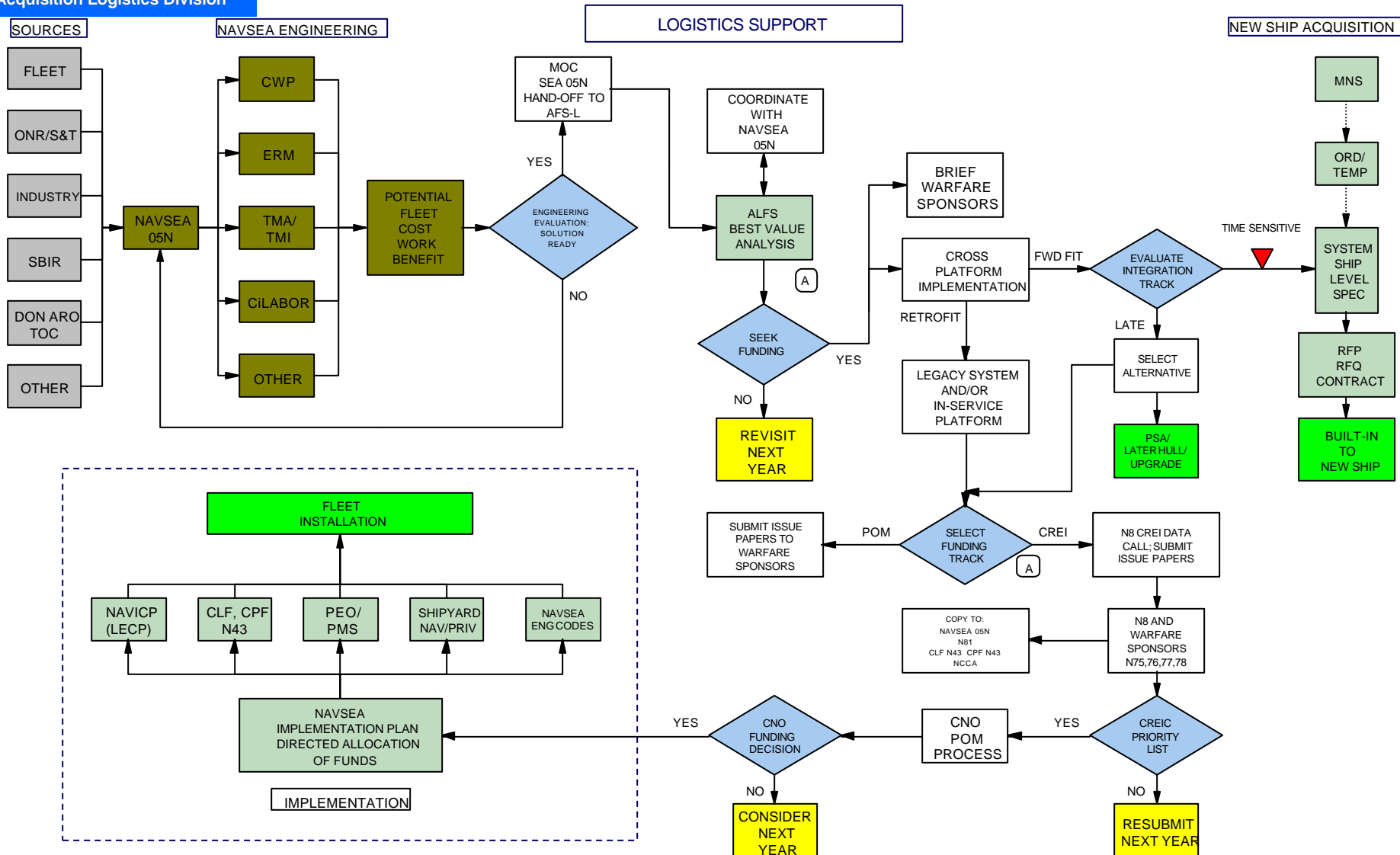


Acquisition Logistics For Fleet Support

Implementation Process

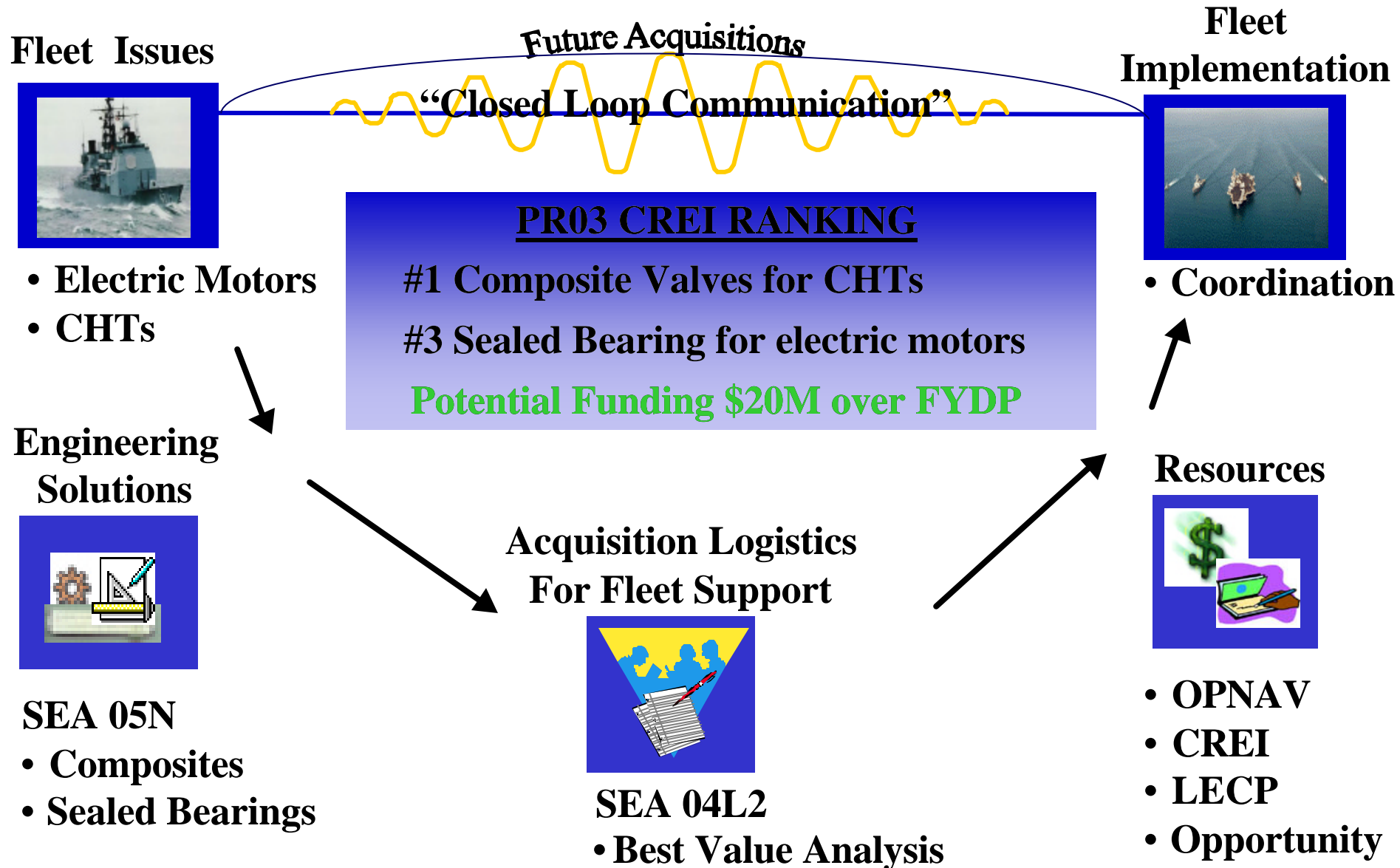


Acquisition Logistics For Fleet Support



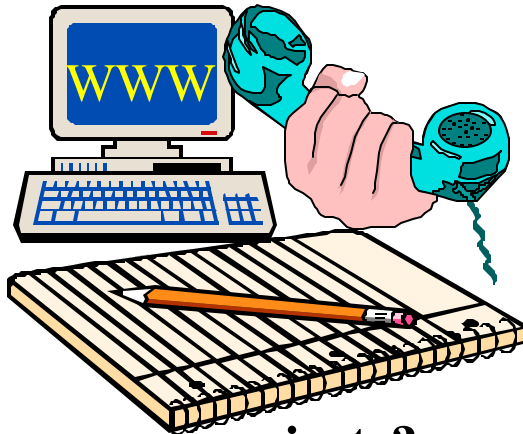
ALFS PROCESS

“Optimizing Fleet Solutions”



Current Initiatives

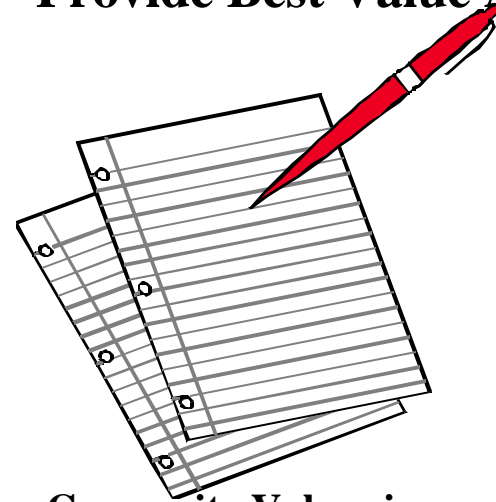
- **Fleet Communications**



How do we communicate?

- Guide potential solutions through process
- Display individual initiative's progress
- Receive feedback from the Fleet

- **Provide Best Value Analysis**



- Composite Valves in sea water systems
- Flex Gaskets in Lube oil systems
- Mechanical Seals (Split Pump Seals)
- Mechanical Seals (Cartridge)

“Support Fleet Priorities ”



Contact Information

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BACK UP SLIDES

WEB Resources

- Small Business Innovation Research <http://www.sba.gov/sbir>
- NAVSEA Engineering <http://maintenance.navsea.navy.mil>